SEQUENCE LISTING

<110> Duke University
Arcasoy, Murat O.
Haroon, Zishan A.

<120> Use of Novel Cytokine Receptors as Biomarkers and Therapeutic Targets in Human Cancer

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gagcttcgtg cccctagagt tgcgcgtcac agcagcctcc ggcgctccgc gatatcaccg 540

tgtcatccac atcaatgaag tagtgctcct agacgccccc gtggggctgg tggcgcggtt 600

ggctgacgag agcggccacg tagtgttgcg ctggctcccg ccgcctgaga cacccatgac 660

gtctcacatc cgctacgagg tggacgtctc ggccggcaac ggcgcaggga gcgtacagag 720

ggtggagatc ctggagggcc gcaccgagtg tgtgctgagc aacctgcggg gccggacgcg 780

ctacaccttc gccgtccgcg cgcgtatggc tgagccgagc ttcggcggct tctggagcgc 840

ctggtcggag cctgtgtcgc tgctgacgcc tagcgacctg gacccccтca tcctgacgct 900

ctccctcatc ctcgtggtca tcctggtgct gctgaccgtg ctcgcgctgc tctcccaccg 960

ccgggctctg aagcagaaga tctggcctgg catcccgagc ccagagagcg agtttgaagg 1020

cctcttcacc acccacaagg gtaacttcca gctgtggctg taccagaatg atggctgcct 1080

gtggtggagc ccctgcaccc ccttcacgga ggacccacct gcttccctgg aagtcctctc 1140

agagcgctgc tgggggacga tgcaggcagt ggagccgggg acagatgatg agggcccccт 1200

gctggagcca gtgggcagtg agcatgccca ggatacctat ctggtgctgg acaaatggtt 1260

gctgccccgg aacccgccca gtgaggacct cccagggcct ggtggcagtg tggacatagt 1320

ggccatggat gaaggctcag aagcatcctc ctgctcatct gctttggcct cgaagcccag 1380

cccagaggga gcctctgctg ccagctttga gtacactatc ctggacccca gctcccagct 1440

cttgcgtcca tggacactgt gccctgagct gcccccтacc ccaccccacc taaagtacct 1500

gtaccttgtg gtatctgact ctggcatctc aactgactac agctcagggg actcccaggg 1560

agcccaaggg ggcttatccg atggccccta ctccaaccct tatgagaaca gccttatccc 1620

agccgctgag cctctgcccc ccagctatgt ggcttgctct taggacacca ggctgcagat 1680

gatcagggat ccaatatgac tcagagaacc agtgcagact caagacttat ggaacaggga 1740

tggcgaggcc tctctcagga gcaggggcat tgctgatttt gtctgcccaa tccatcctgc 1800

tcaggaaacc acaaccttgc agtattttta aatatgtata gtttttttat atgtatagtt 1860

ttttt 1865

<210> 4
<211> 858
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(855)

<223> EpoR Isoform 1, intron 6 insert

<400> 4

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atg gac cac ctc ggg gcg tcc ctc tgg ccc cag gtc ggc tcc ctt tgt       48
Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15

ctc ctg ctc gct ggg gcc gcc tgg gcg ccc ccg cct aac ctc ccg gac       96
Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

ccc aag ttc gag agc aaa gcg gcc ttg ctg gcg gcc cgg ggg ccc gaa      144
Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

gag ctt ctg tgc ttc acc gag cgg ttg gag gac ttg gtg tgt ttc tgg      192
Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60

gag gaa gcg gcg agc gct ggg gtg ggc ccg ggc aac tac agc ttc tcc      240
Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

tac cag ctc gag gat gag cca tgg aag ctg tgt cgc ctg cac cag gct      288
Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

ccc acg gct cgt ggt gcg gtg cgc ttc tgg tgt tcg ctg cct aca gcc      336
Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

gac acg tcg agc ttc gtg ccc cta gag ttg cgc gtc aca gca gcc tcc      384
Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

ggc gct ccg cga tat cac cgt gtc atc cac atc aat gaa gta gtg ctc      432
Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

cta gac gcc ccc gtg ggg ctg gtg gcg cgg ttg gct gac gag agc ggc      480
Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

cac gta gtg ttg cgc tgg ctc ccg ccg cct gag aca ccc atg acg tct      528
His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

cac atc cgc tac gag gtg gac gtc tcg gcc ggc aac ggc gca ggg agc      576
His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

gta cag agg gtg gag atc ctg gag ggc cgc acc gag tgt gtg ctg agc      624
Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

aac ctg cgg ggc cgg acg cgc tac acc ttc gcc gtc cgc gcg cgt atg      672
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

gct gag ccg agc ttc ggc ggc ttc tgg agc gcc tgg tcg gag cct gtg      720
Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
```

```
225                 230                 235                 240

tcg ctg ctg acg cct agc gac ctg gac ccc ctc atc ctg acg ctc tcc      768
Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser
                245                 250                 255

ctc atc ctc gtg gtc atc ctg gtg ctg ctg acc gtg ctc gcg ctg ctc      816
Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu
            260                 265                 270

tcc cac cgc cgg atg gtc agg gaa ggc tcc agg agg agg tga               858
Ser His Arg Arg Met Val Arg Glu Gly Ser Arg Arg Arg
        275                 280                 285


<210>  5
<211>  285
<212>  PRT
<213>  Homo sapiens

<400>  5

Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15

Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60

Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160
```

```
His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser
                245                 250                 255

Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu
            260                 265                 270

Ser His Arg Arg Met Val Arg Glu Gly Ser Arg Arg Arg
        275                 280                 285
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<210> 6
<211> 954
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(951)
<223> EpoR Isoform 2, intron 7 insert

<400> 6

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atg gac cac ctc ggg gcg tcc ctc tgg ccc cag gtc ggc tcc ctt tgt       48
Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15

ctc ctg ctc gct ggg gcc gcc tgg gcg ccc ccg cct aac ctc ccg gac       96
Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

ccc aag ttc gag agc aaa gcg gcc ttg ctg gcg gcc cgg ggg ccc gaa      144
Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

gag ctt ctg tgc ttc acc gag cgg ttg gag gac ttg gtg tgt ttc tgg      192
Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60
```

```
gag gaa gcg gcg agc gct ggg gtg ggc ccg ggc aac tac agc ttc tcc      240
Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

tac cag ctc gag gat gag cca tgg aag ctg tgt cgc ctg cac cag gct      288
Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

ccc acg gct cgt ggt gcg gtg cgc ttc tgg tgt tcg ctg cct aca gcc      336
Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

gac acg tcg agc ttc gtg ccc cta gag ttg cgc gtc aca gca gcc tcc      384
Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

ggc gct ccg cga tat cac cgt gtc atc cac atc aat gaa gta gtg ctc      432
Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

cta gac gcc ccc gtg ggg ctg gtg gcg cgg ttg gct gac gag agc ggc      480
Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

cac gta gtg ttg cgc tgg ctc ccg ccg cct gag aca ccc atg acg tct      528
His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

cac atc cgc tac gag gtg gac gtc tcg gcc ggc aac ggc gca ggg agc      576
His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

gta cag agg gtg gag atc ctg gag ggc cgc acc gag tgt gtg ctg agc      624
Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

aac ctg cgg ggc cgg acg cgc tac acc ttc gcc gtc cgc gcg cgt atg      672
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

gct gag ccg agc ttc ggc ggc ttc tgg agc gcc tgg tcg gag cct gtg      720
Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

tcg ctg ctg acg cct agc gac ctg gac ccc ctc atc ctg acg ctc tcc      768
Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser
                245                 250                 255

ctc atc ctc gtg gtc atc ctg gtg ctg ctg acc gtg ctc gcg ctg ctc      816
Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu
            260                 265                 270

tcc cac cgc cgg gct ctg aag cag aag atc tgg cct ggc atc ccg agc      864
Ser His Arg Arg Ala Leu Lys Gln Lys Ile Trp Pro Gly Ile Pro Ser
        275                 280                 285

cca gag agc gag ttt gaa ggc ctc ttc acc acc cac aag ggt aac ttc      912
Pro Glu Ser Glu Phe Glu Gly Leu Phe Thr Thr His Lys Gly Asn Phe
    290                 295                 300

cag gtt ggt gct att tct tca gct gtg gct gta cca gaa tga              954
```

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Gln Val Gly Ala Ile Ser Ser Ala Val Ala Val Pro Glu
305                 310                 315


<210>  7
<211>  317
<212>  PRT
<213>  Homo sapiens

<400>  7

Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15


Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30


Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45


Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60


Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80


Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95


Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110


Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125


Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140


Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160


His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175


His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190


Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205
```

```
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser
                245                 250                 255

Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu
            260                 265                 270

Ser His Arg Arg Ala Leu Lys Gln Lys Ile Trp Pro Gly Ile Pro Ser
        275                 280                 285

Pro Glu Ser Glu Phe Glu Gly Leu Phe Thr Thr His Lys Gly Asn Phe
    290                 295                 300

Gln Val Gly Ala Ile Ser Ser Ala Val Ala Val Pro Glu
305                 310                 315
```

<210> 8
<211> 987
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(984)
<223> EpoR Isoform 3, intron 7 unspliced

<400> 8

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atg gac cac ctc ggg gcg tcc ctc tgg ccc cag gtc ggc tcc ctt tgt       48
Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15

ctc ctg ctc gct ggg gcc gcc tgg gcg ccc ccg cct aac ctc ccg gac       96
Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

ccc aag ttc gag agc aaa gcg gcc ttg ctg gcg gcc cgg ggg ccc gaa      144
Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

gag ctt ctg tgc ttc acc gag cgg ttg gag gac ttg gtg tgt ttc tgg      192
Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60

gag gaa gcg gcg agc gct ggg gtg ggc ccg ggc aac tac agc ttc tcc      240
Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80
```

```
tac cag ctc gag gat gag cca tgg aag ctg tgt cgc ctg cac cag gct      288
Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

ccc acg gct cgt ggt gcg gtg cgc ttc tgg tgt tcg ctg cct aca gcc      336
Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

gac acg tcg agc ttc gtg ccc cta gag ttg cgc gtc aca gca gcc tcc      384
Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

ggc gct ccg cga tat cac cgt gtc atc cac atc aat gaa gta gtg ctc      432
Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

cta gac gcc ccc gtg ggg ctg gtg gcg cgg ttg gct gac gag agc ggc      480
Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

cac gta gtg ttg cgc tgg ctc ccg ccg cct gag aca ccc atg acg tct      528
His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

cac atc cgc tac gag gtg gac gtc tcg gcc ggc aac ggc gca ggg agc      576
His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

gta cag agg gtg gag atc ctg gag ggc cgc acc gag tgt gtg ctg agc      624
Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

aac ctg cgg ggc cgg acg cgc tac acc ttc gcc gtc cgc gcg cgt atg      672
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

gct gag ccg agc ttc ggc ggc ttc tgg agc gcc tgg tcg gag cct gtg      720
Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

tcg ctg ctg acg cct agc gac ctg gac ccc ctc atc ctg acg ctc tcc      768
Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser
                245                 250                 255

ctc atc ctc gtg gtc atc ctg gtg ctg ctg acc gtg ctc gcg ctg ctc      816
Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu
            260                 265                 270

tcc cac cgc cgg gct ctg aag cag aag atc tgg cct ggc atc ccg agc      864
Ser His Arg Arg Ala Leu Lys Gln Lys Ile Trp Pro Gly Ile Pro Ser
        275                 280                 285

cca gag agc gag ttt gaa ggc ctc ttc acc acc cac aag ggt aac ttc      912
Pro Glu Ser Glu Phe Glu Gly Leu Phe Thr Thr His Lys Gly Asn Phe
    290                 295                 300

cag gta ggt ggc ctg gtt gtc ccc tca gtg cct ggg ctt ccc tgc ttc      960
Gln Val Gly Gly Leu Val Val Pro Ser Val Pro Gly Leu Pro Cys Phe
305                 310                 315                 320
```

```
ttg cag cca aac tgc agg cct ctc tga                                    987
Leu Gln Pro Asn Cys Arg Pro Leu
                325
```

<210> 9
<211> 328
<212> PRT
<213> Homo sapiens

<400> 9

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Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                  10                  15

Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60

Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
```

```
        195                 200                 205

Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

Ser Leu Leu Thr Pro Ser Asp Leu Asp Pro Leu Ile Leu Thr Leu Ser
                245                 250                 255

Leu Ile Leu Val Val Ile Leu Val Leu Leu Thr Val Leu Ala Leu Leu
            260                 265                 270

Ser His Arg Arg Ala Leu Lys Gln Lys Ile Trp Pro Gly Ile Pro Ser
        275                 280                 285

Pro Glu Ser Glu Phe Glu Gly Leu Phe Thr Thr His Lys Gly Asn Phe
    290                 295                 300

Gln Val Gly Gly Leu Val Val Pro Ser Val Pro Gly Leu Pro Cys Phe
305                 310                 315                 320

Leu Gln Pro Asn Cys Arg Pro Leu
                325
```

<210> 10
<211> 804
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(801)
<223> EpoR Isoform 4, intron 5 unspliced

<400> 10

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atg gac cac ctc ggg gcg tcc ctc tgg ccc cag gtc ggc tcc ctt tgt       48
Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15

ctc ctg ctc gct ggg gcc gcc tgg gcg ccc ccg cct aac ctc ccg gac       96
Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

ccc aag ttc gag agc aaa gcg gcc ttg ctg gcg gcc cgg ggg ccc gaa      144
Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

gag ctt ctg tgc ttc acc gag cgg ttg gag gac ttg gtg tgt ttc tgg      192
Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
```

```
    50                  55                  60

gag gaa gcg gcg agc gct ggg gtg ggc ccg ggc aac tac agc ttc tcc      240
Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

tac cag ctc gag gat gag cca tgg aag ctg tgt cgc ctg cac cag gct      288
Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

ccc acg gct cgt ggt gcg gtg cgc ttc tgg tgt tcg ctg cct aca gcc      336
Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

gac acg tcg agc ttc gtg ccc cta gag ttg cgc gtc aca gca gcc tcc      384
Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

ggc gct ccg cga tat cac cgt gtc atc cac atc aat gaa gta gtg ctc      432
Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

cta gac gcc ccc gtg ggg ctg gtg gcg cgg ttg gct gac gag agc ggc      480
Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

cac gta gtg ttg cgc tgg ctc ccg ccg cct gag aca ccc atg acg tct      528
His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

cac atc cgc tac gag gtg gac gtc tcg gcc ggc aac ggc gca ggg agc      576
His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

gta cag agg gtg gag atc ctg gag ggc cgc acc gag tgt gtg ctg agc      624
Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

aac ctg cgg ggc cgg acg cgc tac acc ttc gcc gtc cgc gcg cgt atg      672
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

gct gag ccg agc ttc ggc ggc ttc tgg agc gcc tgg tcg gag cct gtg      720
Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

tcg ctg ctg acg cct agc ggt gag gcc cca ggc ggg ggt gta gga gga      768
Ser Leu Leu Thr Pro Ser Gly Glu Ala Pro Gly Gly Gly Val Gly Gly
                245                 250                 255

gcc agg gcg aat cac ggg gca agc cca ccg ccc tga                      804
Ala Arg Ala Asn His Gly Ala Ser Pro Pro Pro
            260                 265
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<210> 11
<211> 267
<212> PRT
<213> Homo sapiens

<400> 11

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Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                  10                  15

Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
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Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
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Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240
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Met Asp His Leu Gly Ala Ser Leu Trp Pro Gln Val Gly Ser Leu Cys
1               5                   10                  15

ctc ctg ctc gct ggg gcc gcc tgg gcg ccc ccg cct aac ctc ccg gac        96
Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

ccc aag ttc gag agc aaa gcg gcc ttg ctg gcg gcc cgg ggg ccc gaa       144
Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

gag ctt ctg tgc ttc acc gag cgg ttg gag gac ttg gtg tgt ttc tgg       192
Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60

gag gaa gcg gcg agc gct ggg gtg ggc ccg ggc aac tac agc ttc tcc       240
Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

tac cag ctc gag gat gag cca tgg aag ctg tgt cgc ctg cac cag gct       288
Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

ccc acg gct cgt ggt gcg gtg cgc ttc tgg tgt tcg ctg cct aca gcc       336
Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

gac acg tcg agc ttc gtg ccc cta gag ttg cgc gtc aca gca gcc tcc       384
Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125

ggc gct ccg cga tat cac cgt gtc atc cac atc aat gaa gta gtg ctc       432
Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
    130                 135                 140

cta gac gcc ccc gtg ggg ctg gtg gcg cgg ttg gct gac gag agc ggc       480
Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145                 150                 155                 160

cac gta gtg ttg cgc tgg ctc ccg ccg cct gag aca ccc atg acg tct       528
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His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
                165                 170                 175

cac atc cgc tac gag gtg gac gtc tcg gcc ggc aac ggc gca ggg agc      576
His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
            180                 185                 190

gta cag agg gtg gag atc ctg gag ggc cgc acc gag tgt gtg ctg agc      624
Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
        195                 200                 205

aac ctg cgg ggc cgg acg cgc tac acc ttc gcc gtc cgc gcg cgt atg      672
Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
    210                 215                 220

gct gag ccg agc ttc ggc ggc ttc tgg agc gcc tgg tcg gag cct gtg      720
Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225                 230                 235                 240

tcg ctg ctg acg cct agc ggg ctc tga                                  747
Ser Leu Leu Thr Pro Ser Gly Leu
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Leu Leu Leu Ala Gly Ala Ala Trp Ala Pro Pro Pro Asn Leu Pro Asp
            20                  25                  30

Pro Lys Phe Glu Ser Lys Ala Ala Leu Leu Ala Ala Arg Gly Pro Glu
        35                  40                  45

Glu Leu Leu Cys Phe Thr Glu Arg Leu Glu Asp Leu Val Cys Phe Trp
    50                  55                  60

Glu Glu Ala Ala Ser Ala Gly Val Gly Pro Gly Asn Tyr Ser Phe Ser
65                  70                  75                  80

Tyr Gln Leu Glu Asp Glu Pro Trp Lys Leu Cys Arg Leu His Gln Ala
                85                  90                  95

Pro Thr Ala Arg Gly Ala Val Arg Phe Trp Cys Ser Leu Pro Thr Ala
            100                 105                 110

Asp Thr Ser Ser Phe Val Pro Leu Glu Leu Arg Val Thr Ala Ala Ser
        115                 120                 125
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Gly Ala Pro Arg Tyr His Arg Val Ile His Ile Asn Glu Val Val Leu
130 135 140

Leu Asp Ala Pro Val Gly Leu Val Ala Arg Leu Ala Asp Glu Ser Gly
145 150 155 160

His Val Val Leu Arg Trp Leu Pro Pro Pro Glu Thr Pro Met Thr Ser
165 170 175

His Ile Arg Tyr Glu Val Asp Val Ser Ala Gly Asn Gly Ala Gly Ser
180 185 190

Val Gln Arg Val Glu Ile Leu Glu Gly Arg Thr Glu Cys Val Leu Ser
195 200 205

Asn Leu Arg Gly Arg Thr Arg Tyr Thr Phe Ala Val Arg Ala Arg Met
210 215 220

Ala Glu Pro Ser Phe Gly Gly Phe Trp Ser Ala Trp Ser Glu Pro Val
225 230 235 240

Ser Leu Leu Thr Pro Ser Gly Leu
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